

JPRS-TEP-89-002  
2 FEBRUARY 1989



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# ***JPRS Report***

# **Epidemiology**

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# Epidemiology

JPRS-TEP-89-002

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2 FEBRUARY 1989

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## INTER-AFRICAN

### Political Impact of AIDS Pandemic Weighed

**Lack of Funds Hampers Education**  
54000047 Durban THE DAILY NEWS  
in English 14 Dec 88 p 10

[Article by Laura Nelson]

[Text] The killer disease AIDS could be the catalyst to turn Africa into a mosaic of warring tribal camps.

"And to do so, all the pandemic will have to do is to follow the growth curves we are seeing now," says Dr Chester Nagle, Director of the AIDS Policy Research Centre in America and Africa.

He outlines his views in a paper on the geopolitical impact of AIDS in Southern Africa, which are highlighted in the latest newsletter of the South African Forum.

"Scanning the near horizon with geopolitical binoculars, the future looks exceedingly dangerous for Africa, and steps need to be taken to avoid the AIDS holocaust overtaking South Africa's neighbours," he says.

The chronic AIDS situation in Africa is aggravated by political instability in the region and small national budgets that do not allow for the close monitoring of blood supplies, distribution of condoms or the use of disposable syringes.

"In the absence of a vaccine or a cure, the only way to stem the increase of heterosexual AIDS is by massive public education."

However, this is expensive and is hampered by the need to use diverse languages.

Dr Nagle presents the following AIDS scenario in Africa:

\* Angola: Torn by civil war for 13 years, it has reported only 6 cases of AIDS. There are indications, however, that AIDS is rife in the ANC detention and training camps in Angola, Zambia and the Cuban army.

\* Burundi: Here 1,156 cases were reported by June, but a research team in 1986 estimated that 10 percent of the country's 5 million are carriers and that more than 200,000 will develop full-blown AIDS by 1990.

Recent unrest was the cause of 35,000 Hutu refugees crossing the border into Rwanda. On their return they will bring more AIDS cases into the population.

\* Central African Republic: Early this year it was estimated that at least 8 percent of the population was HIV positive.

\* Kenya: Despite the Government's clamp on releasing AIDS statistics, reliable reports indicate that close to 100 percent of people in Nairobi are carriers, and the general doubling rate is less than 8 months.

\* Malawi: Reports suggest this country may have the highest number of carriers in Africa, and it is doubtful whether South African mining companies can continue to employ Malawi labour.

\* Mozambique: From a high of 120,000 migrant miners, Mozambique now has less than 50,000 in South Africa. Nevertheless, the number of carriers among them is increasing rapidly.

\* Nigeria: Highly populated, yet the government refuses to admit it has had any cases.

\* Rwanda: Is the most densely populated country in Africa. A staggering 90 percent of prostitutes are carriers; 18 percent of blood donors test HIV positive and as many as 35 percent of the official AIDS cases are children.

\* Uganda: The portrait of AIDS is clear and awful: experts project at least 50 percent of the population will be carriers by the turn of the century.

\* Zaire: Up to 8 percent of the blood donors in Kinshasa, the capital, are HIV positive.

\* Zambia: In 1986 more than 23 percent of the population was estimated to be HIV positive.

More than 8 percent of the women delivered of babies at the Lusaka University Hospital are HIV positive as are at least 13 percent of the blood donors in rural Zambia.

\* Zimbabwe: Before the most recent WHO report Zimbabwe reported 380 cases of AIDS. In June this year it reported only 119 cases.

Experts believe there is a rigorous suppression of AIDS information by the government and that the country has a grave problem.

\* South Africa: Is just coming to grips with the problem, which is in the relatively early stage.

Using the empirical rule of thumb that one AIDS case represents 100 HIV positives, there are at least 12,000 carriers in the population.

### Fear Could Unite Southern Africa

54000047 Durban *THE DAILY NEWS*  
in English 14 Dec 88 p 10

[Text] The days of the frontline states standing against South Africa are drawing to a close—and it will be their desperate fight against the AIDS pandemic which will unite them in the near future.

That is the opinion of Dr Chester Nagle, director of the AIDS Policy Research Centre in America and Africa, who says south Africa has a major role to play in preventing the destruction of Africa by the killer disease.

"The new frontline is against AIDS, and South Africa can be a leader in the battle. It can once again be the resident representative of the First World in Africa," he says.

"As country after country is destroyed by the AIDS virus, South Africa will inexorably be drawn into the vortex."

However, Dr Nagle says there is an alternative strategy: co-operative action.

"This could be the key to the alternative future, and a way must be found to use it to combat the AIDS plague."

A regional health scheme is needed, and its primary purpose should be to stem the AIDS plague.

"The feasibility of a Southern African Health Union (SAHU) should be carefully examined," Dr Nagle says.

This would initially be made up of countries which have already cooperated with each other, such as Botswana, Lesotho, Namibia, South Africa and Swaziland.

"For many reasons—mainly to ensure the organisation's access to international forums—South Africa should not be the chairman of the SAHU. On the other hand, it will have to fund most of the organisation's work because of its ability to pay more than the other members."

Dr Nagle says the SAHU would not come as a surprise because South African already has co-operative programmes with Swaziland on malaria and with Namibia on bilharzia.

"As far as the rest of Africa and the international community is concerned, the reaction of the appearance of the SAHU will be most interesting.

"Naturally other nations in Africa will be invited to join, and whether or not they do so will depend on their perception of their self-interest."

### NIGERIA

#### Government To Probe Visa Denial Based on AIDS

54000045 Lagos *DAILY TIMES* in English  
2 Dec 88 p 24

[Text] The Federal Government will take appropriate counter measures if the government finds true an allegation that some embassies in the country conduct AIDS tests on Nigerians or demand for AIDS-free certificates before issuing them with visas, the Chief of General Staff, Vice-Admiral Augustus Aikhomu warned in Lagos yesterday.

The Chief of General Staff who gave the warning while speaking at an occasion to mark the world AIDS Day yesterday said it was a wasteful exercise to dwell on the origin of AIDs, adding that what "is needed now is a concrete and worldwide collaboration in the fight against the disease."

Vice-Admiral Aikhomu, who spoke through Brigadier Ishaya Bakut, emphasised that the goal of the government was to ensure safe "blood transfusion in all our medical institutions, with the ultimate aim of keeping the incidence of the killer-disease low."

#### Carriers

In an earlier address, the World Health Organisation (WHO) representative Dr. S.H. Brew-Graves said that as at November 1, this year, the estimated figure of "about 10 million undiagnosed AIDS virus carriers all over the world remained unchallenged and reliable."

He said that though Nigeria ostensibly do not have a major AIDS problem now, its control and prevention through information and education must not be relaxed.

### ZAMBIA

#### Malaria-Free Area Now Treating 300,000 Cases

54000022b Lusaka *TIMES OF ZAMBIA* in English  
6 Dec 88 p 1

[Excerpt] The Copperbelt which was almost malaria free in the past is now among the highly malaria-infested areas in Zambia, said provincial political secretary Cde Esther Banda in Ndola yesterday.

Treating almost 300,000 malaria cases last year meant that nearly two million tablets of chloroquine were taken while the total cost of treating and feeding patients who were hospitalised reached K1 million.

Launching malaria control week at Ndola's Arthur Davison Hospital she said malaria cases in the province have risen by 94,700 in the past five years from 189,344 and it was feared that the situation would be worse during the current rainy season.



The Copperbelt, now rated as one of the highly malaria-infested areas, registered 418 deaths and the figure was rising.

Under these circumstances, the nation has no alternative but to mobilise and educate people on the practical preventive measures which should include cleaning surroundings in townships.

A recently compiled survey on swimming pools in one of the towns on the Copperbelt showed that 96 per cent of them were breeding grounds for mosquitoes.

She advised swimming pool owners to take a keen interest in their maintenance by regular chlorination and frequent drainage.

Earlier, a senior nursing officer called on politicians to pay regular visits to the Arthur Davison Hospital which is facing a critical shortage of beds and transport.

[Passage omitted]

**Over 5,000 Malaria Cases Reported in 1987**  
54000022a Lusaka TIMES OF ZAMBIA in English  
7 Dec 88 p 1

[Text] President Kaunda today launches the national malaria control week at Kamwala clinic in Lusaka as part of the on-going war against the killer disease.

Ministry of Health permanent secretary Dr Evariste Njelesani said yesterday the week whose theme is "combat malaria can be controlled or prevented" will include symbolic spraying of houses.

Other highlights will include performances on malaria prevention and control, video shows and lectures to educate people on how best to handle malaria problems.

In Chililabombwe, acting governor Cde Goodson Malipilo asked residents to take part in malaria preventive activities.

He told residents that malaria was a killer and it was imperative that every member of the community participated in preventing the disease.

Kaoma governor Cde George Kateka said 3,717 cases were reported in 1986 in hospitals and health institutions compared to 5,622 in 1987.

There was big increase of the disease every year in the district.

**One Million Suffering From Bilharzia**  
54000022c Lusaka TIMES OF ZAMBIA in English  
28 Nov 88 p 2

[Excerpt] At least a million people in Zambia suffer from bilharzia and most of these are in rural areas.

It was learnt in Kitwe that 40 school children in Kasempa suffer from the disease.

Macacologist at the National Council for Scientific Research Centre (NCSRC) Dr Mohammed Shehata said during an open day that he had received a letter from the headquarters in Lusaka to rush to Kasempa to determine the incidence of bilharzia.

The disease was rampant in rural areas because of poor water supply systems. It had been established that at least a million Zambians were suffering from bilharzia.

But he noted that bilharzia was preventable and could be cured. The centre was involved in further research on how to deal with the problem.

Head of the tree improvement section at the centre Cde Charles Mwamba said the section was hit by a critical shortage of funds and manpower and this was holding up most research work.

Apart from the shortage of funds and manpower lack of equipment was crippling the operations of the centre.

He said the shortage of staff was so bad that he was the only scientist left in his department.

[Passage omitted]

**AIDS Virus Carriers in Alberta Can Be Quarantined**

54200019 Toronto *THE GLOBE AND MAIL*  
in English 10 Dec 88 p A6

[Text] Edmonton—Carriers of the AIDS virus who threaten the health of others can be quarantined under Alberta government regulations announced on Thursday. Effective immediately, human immunodeficiency virus infection has been added to a provincial list of communicable diseases for which isolation orders, certificates and warrants for examination can be issued. Earlier this year, Alberta passed legislation allowing doctors to quarantine patients with full-blown cases of acquired immune deficiency syndrome.

**Powell River RCMP Cancer Incidence To Be Probed**

54200020 Toronto *THE GLOBE AND MAIL*  
in English 12 Dec 88 p A4

[Text] Provincial Health Minister Peter Dueck has promised an immediate investigation into why a large number of Royal Canadian Mounted Police officers who have worked at the Powell River detachment have cancer. There have been 14 cancer cases within 15 years in a detachment with 23 policemen and 26 civilians,

detachment head Staff-Sgt Ron Mangan said. "We're very, very concerned," Mr Dueck said. "It seems too much to be a coincidence." Last week the RCMP called in Chris Van Netten, a University of British Columbia epidemiologist, to test everything in their headquarters building, including the dust.

**Dioxin Traces Found in British Columbia Salmon**

54200021 Ottawa *THE OTTAWA CITIZEN* in English  
5 Dec 88 p A2

[Text] Victoria (CP)—Salmon near British Columbia pulp mills have been found to contain low levels of dioxins but do not present a health hazard, B.C. Environment Minister Bruce Strachan said Sunday.

Strachan, who promised last week to draft laws that could mean mills being fined up to \$1 million or closed down for discharging dioxins, said he received his information from a federal study but had no specific levels of the chemical in the fish.

"It must be stressed that Health and Welfare Canada has told us that there is no health hazard to consumers of salmon in light of the study," said Strachan, who said in a statement he has also discussed the matter with Fisheries Minister Tom Siddon.

**President of Academy of Medical Sciences  
Interviewed on AIDS**

**Current Statistics, Testing Policy**  
54001027 Moscow SOVETSKAYA ROSSIYA  
in Russian 20 Jul 88 p 4

[Interview with President of USSR Academy of Medical Sciences V. I. Pokrovskiy by SOVETSKAYA ROSSIYA correspondents: "What Is Feeding the AIDS Virus?—Moral Deficiency"; date and place of interview not given]

[Text]SOVETSKAYA ROSSIYA: Valentin Ivanovich, AIDS has often been called the "plague of the 20th century." What have been the latest scientific advances in the study of this disease?

V.I. Pokrovskiy: The disease that has been from the very first called AIDS is more properly called human immunodeficiency viral (HIV) infection. This is the term now being used by specialists. As we know, this infection was discovered relatively recently, at the end of 1981. Nevertheless, it has been studied quite thoroughly during these past seven years. The fact of the matter is that the situation had become so serious that never has so much money and effort been expended on a single disease as has been expended on the study of the AIDS problem. One can cite the following figures: expenditures in the USA by 1987 were a little over one thousand percent greater than in 1984. The federal budget for 1988 alone has allocated one and one-half billion dollars for this problem.

What do we know about immunodeficiency virus infections? The renaming of the disease itself indicates that we have well recognized that the disease is caused by a virus. The virus was discovered in 1983. Apparently, the first to discover it were French scientists, although there is reason to believe that the virus was detected even earlier, but no one realized that it was the etiological agent of AIDS. It has now perhaps been more thoroughly studied than viruses of many other diseases, but that in itself is no cause for optimism.

We also have a good knowledge about the mode of AIDS transmission. The virus is transmitted in sexual contact and in blood transfusions. I should remind you that the virus enters the body through damaged mucous membranes or broken skin. These microlesions occur during sexual intercourse and thus become the "entry gates" for the virus. Today we can say with considerable confidence that the virus cannot penetrate unbroken skin and is not transmitted by any means other than the ones mentioned above. Those panicky statements appearing in the press about mosquitos, cats, etc., being carriers of the virus have not been confirmed.

I will say frankly that it is lucky for humanity that the virus is transmitted by these two means only, thereby contributing to the relatively slow propagation of the

disease, as opposed, let us say, to smallpox, which is transmitted from person to person via the respiratory system. Such infections travel with lightning speed, and if you could transmit the immunodeficiency virus via the respiratory system, there is no telling what the consequences would be. On the other hand, however, this kind of disease transmission also defines the problem of the disease, because it is no easy task to prevent its spread or to influence the behavior of people. Nevertheless, the fight against the further growth of this epidemic, in any case within the immediate decades ahead, will ultimately boil down to teaching each person to lead the kind of life that will allow him to avoid infection.

The comparison of HIV infection to the plague is not a very fitting one. The underlying principles of infection are quite different, as I already mentioned; after all, the plague is transmitted by fleas or through the air, so that it is spread much more quickly. The "plague of the 20th century" is merely a newspaper stock phrase. In our country, both drug addiction and prostitution are "plagues of the 20th century," only they are not called that.

SOVETSKAYA ROSSIYA: And what do we know today about the origin of the virus?

V.I. Pokrovskiy: That is a frequently asked question. The press has already written about the artificial source of the virus. This has been primarily due to the unexpected appearance of the new disease and the limited knowledge about how infectious diseases develop. Prior to AIDS, we paid little attention to the origin of infectious diseases. Advocates of the possible artificial origin of the virus at first claimed that no analogs of this virus existed in nature. But the accumulation of scientific data has shown that there are naturally occurring monkey immunodeficiency viruses. A second type of immunodeficiency virus was recently discovered whose structure and characteristics appear to make it an intermediate form between the monkey virus and the human immunodeficiency virus. We now know that the first reports about the appearance of this virus were made, apparently, at the end of the '50s. It is most probable that that is when the infection first started to spread. But at that time there was not a single laboratory on the globe that could have created any kind of analog. I am not so sure that even now there is any laboratory that can create a similar virus. No country has accomplished that.

I cannot help but mention the harm that was done to all of us by the groundless accusation made by certain Soviet journalists to the effect that this infection was being manufactured and propagated by American researchers and governmental institutions. I can declare, with complete responsibility, that there is not a single Soviet scientist nor a single medical or scientific institution that shares that view.

But how did the virus actually develop? I believe that, of course, there has been a certain human impact on nature, which was, of course, an unconscious action. The virus which we find in people is different from the one in monkeys. None of the human viruses has been found in any monkey. This means that the virus must have undergone some alteration as a result of some sort of external effects. But which effects? They might include chemical reagents that are widely applied to the environment. They might include radiation. We could also hypothesize that simple passage took place, i.e., the transfer of the virus from one species of animal to another. During passage it is possible that the virus was attenuated, as happened in the time of Pasteur, when he succeeded in producing the anthrax vaccine which is being used even today, although in nature the malignant properties of anthrax bacteria could become stronger.

Thus, we can have some theoretical notion as to how the virus developed. But in order for the virus to spread, there must be social factors conducive to its transmission from one person to another. Such conditions also existed, especially at the end of the '60s, when the so-called sexual revolution was taking place in the West. In addition to that, there was a craving for narcotics in which the repeated use of the same hypodermic needle essentially amounted to the microtransmission of blood. Add to this the vice of prostitution, which, in a number of countries, particularly the African countries, where there is hunger, constitutes a means of survival. All of this contributed to the rapid propagation of the virus.

**SOVETSKAYA ROSSIYA:** Can HIV infection to a certain extent be considered an element of an ecologic catastrophe, since its spread may be related to chemical or radiation factors?

**V.I. Pokrovskiy:** It is very difficult to track direct connections to ecology. But in general, mankind must be prepared, for example, for the fact that the number of people in the world is increasing and, consequently, the probability of coming into contact with the new virus is also increasing.

The very probability that new diseases will develop becomes greater as we expand our economic activity. That conclusion was drawn as early as 1950 by academician Gromashevskiy, one of our most eminent epidemiologists.

Our literature has often stated that the disease was discovered by virologists or immunologists. But in fact it was discovered by ordinary clinicians. They were the first to see the unusual combination of the disease's symptoms and the fact that the patients were, as a rule, in the prime of their life, and it was only later that they asked immunologists and virologists to study the problem. It was then concluded that this was a new disease, which was called acquired immunodeficiency syndrome. But now it is clear that AIDS was only one of the possible final phases of a viral immunodeficiency infection. But,

having begun from the final stage of the disease, we have managed to get to the origin of the new illness within a period of approximately two years. This is very rapid progress and is indeed a major scientific achievement.

**SOVETSKAYA ROSSIYA:** If AIDS is one of the possible final phases, what other variations might there be?

**V.I. Pokrovskiy:** The disease has been under study for seven years. One can say the following: within a period of five years, 25 to 30 percent of those persons infected by the virus can develop AIDS, in which case the immune system is no longer capable of resisting infection, and life-threatening illnesses appear. Such diseases can be a blood infection, pneumonia, or a certain kind of tumor. Twenty to thirty percent of such persons will have immunity disorders which are still life-compatible and are accompanied by certain temporary furunculosis-type diseases and certain pustular lesions of the genitals. But those diseases pass without threatening the life of the patient. Scientists have given various names to that kind of illness, for example, AIDS-related complex. It would be more precise to call such cases a stage of minor immunodeficiency virus infection manifestations... There will be another 50 percent of persons who will show no signs of disease after five years, with the exception of such symptoms as a slight enlargement of the lymph nodes, which only a physician can detect. What will happen to those people after 10 or 20 years cannot yet be predicted. Here there is a diversion of opinion. Some believe that such persons will have to get to the AIDS stage at some point, whereas others believe that only 20 to 30 percent of infected persons will contract AIDS. In any case, there is reason to believe that time is the factor which, of course, increases the risk of developing AIDS. But after the discovery of the virus, there has been a description of a form of the disease which can be fatal. This is encephalitis, an inflammation of the brain caused by the immunodeficiency virus. A certain segment of infected persons (their exact percentage has so far been impossible to determine) develop lesions of the nervous system along with AIDS symptoms and disorders of immunity. At first they appear as memory disorders, after which the personality deteriorates rapidly and death results from marasmus. One should add that the more we study this disease, the more different kinds of virus activity we are finding in the body. We apparently will discover other forms of the disease, including those which result in a fatal outcome. However, there have already been descriptions of cases (and such cases are theoretically possible) where autorecovery occurs, i.e., the body itself copes with the virus.

**SOVETSKAYA ROSSIYA:** Valentin Ivanovich, what is the number of infected persons and AIDS patients in our country?

**V.I. Pokrovskiy:** So far we have detected about 300 persons who have been infected by the virus and most of those are foreigners here in the USSR. Practically all of them have been sent out of the country. There are 64



persons in whom the virus has been found who are citizens of the USSR. In only one of those persons has the disease enter the final phase in which AIDS was clearly manifested. But that small number of persons infected by the virus (in the USA, for example, there are hundreds of thousands of such persons) must not be a cause of reassurance. In our country, too, there has been a clear growth in the dynamics of this disease. Judge for yourself: Last year we detected the virus in 26 persons, but just in the first half year of 1988 alone, we have already found 36 persons with the virus. Moreover, we are just talking about persons in whom physicians have demonstrated the presence of the virus. In reality, the number of such persons is significantly greater. How did they become infected? The largest group of such persons are homosexuals, and primarily those who came into contact with foreigners. The next largest group are female prostitutes. Several persons have been infected during blood transfusions.

I have already spoken about ways to prevent the diseases. What can the public health sector do? Halt the spread of infection via donated blood. There are quite a few such cases in the United States, and there are cases in the Soviet Union, too. Let's take the first known case of AIDS identified in the USSR. Among the persons infected by the virus was one donor who always gave blood voluntarily without receiving any payment, and without knowing that he was a carrier of the virus. His blood was used for transfusions to six persons, of whom five are infected today. One of the blood recipients has not yet shown any signs of infection.

The populace is concerned that such infections can take place in hospitals. I must say that no real threat of this kind exists in the USSR. Since the 1970's our country has been undertaking considerable efforts to prevent the transmission of hepatitis. Such measures include the compulsory boiling of syringes for a period of one and one-half hours. The immunodeficiency virus is not as stable as the hepatitis virus, since it dies within one minute. Therefore, those measures which are being taken to combat hepatitis cover the measures needed for protection against HIV. However, one cannot, of course, overlook the isolated instances in which medical personnel have violated equipment safety regulations. We must be as vigilant as possible, intensify controls, and punish those guilty of such violations. Disposable medical instruments are becoming exceptionally important. Industry is now faced with the task of fully satisfying the need for such instruments. But it has already become clear that a number of ministries and departments have dealt with this task in an irresponsible manner, and the planned production goal will not be achieved. The present situation demands that the state organs maintain stricter control over the execution of their own decisions.

SOVETSKAYA ROSSIYA: Have we now fully cut off all possible routes of infection via the blood?

V.I. Pokrovskiy: We are now checking 97 percent of all transfused blood. The remaining three percent, which does cause everyone concern, relates to blood used in remote regions of the country which do not yet have their own laboratories. I believe that this "lacuna" will disappear at the end of the year. The task at hand is to organize such diagnostic subsystems rapidly, so that it won't be necessary to transport blood from small cities for testing in a big city which has a medical center. Laboratories are needed where five to six analyses can be made every day. Technically, this is not a difficult thing to accomplish. Of course, this entails the training of personnel. I believe that we shall be able to solve these problems in the immediate future.

But I repeat that what is more dangerous is the transmission of the infection by sexual means, which is impossible to place under medical control. Figuratively speaking, the spread of viral immunodeficiency infections has been brought about, to a large extent, by a lack of morals. Prevention here means learning proper sexual behavior. Yes, behavior. I can cite a case where an epidemiologist who knew perfectly well how HIV is transmitted came in to be examined. Despite that knowledge, he entered into a sexual relationship from which he became infected. It simply didn't occur to him that such a thing could happen not just to somebody else, but even to himself. Unfortunately, too many people think the same way. Most important, it is essential that people limit the number of their sexual partners and avoid random liaisons. And if they do take place, condoms must be used. I know that this advice will cause a storm of indignation. We've had that kind of response on a number of occasions already. But I am a physician, and I am obliged to tell the truth, and I am obligated to think about people's safety. I cannot obligate these people to adhere to our moral standards. But we are nevertheless obligated to tell them how to protect themselves against infection. True, a condom cannot provide an absolute guarantee, but it still is a means of protection. Incidentally, there is a shortage of condoms, and according to information reaching me, they are already being black-marketed in the resort cities.

I want to note that a significant segment of our country's population is generally beyond the risk of infection. And that is very gratifying! But we must address ourselves to those for whom the risk is very high. They comprise a very difficult group to influence. This problem has also been encountered in the West, and a more differentiated approach has been adopted there to reach various groups of the population. Special literature is being published, including the kind of literature which this social group has become accustomed to read. If, let us say, such people largely read comic books, then the rules of behavior are taught to them via the comics and via primitive visual aids which, let us assume, can be disseminated in illicit hangouts. We too must begin to develop more fully all of aspects of education. Unfortunately, the publicity we gave to the AIDS issue was like that of a campaign and of a sensational nature, where the topic is given high

exposure briefly, and then little is said for a long time. Maximum publicity was given to the subject last August. It was precisely then that we noted a greater flow of people coming in for anonymous examinations.

**SOVETSKAYA ROSSIYA:** Anonymous examinations, you say. How are they organized?

**V.I. Pokrovskiy:** Anonymous examinations also raise the level of public safety. It is no secret that there is considerable difficulty in examining the groups who are exposed to the greatest risk of infection. They include women who enter into sexual relations with foreigners for mercenary purposes. They also include homosexuals. They cannot be examined in some formally organized way. They must be guaranteed anonymity. One and one-half years ago, an anonymous examination section was set up at the Second Infectious Disease Hospital in Moscow, on Sokolin Hill. That operation turned out to be very effective. Perhaps no other medical institution turned up such a high percentage of carriers as did that laboratory. The examination was arranged so that any person who wishes could submit a venous blood sample and then could call by telephone in two days to get the test results. If the test turns out to be positive it is essential that the person submit to a second examination since the first test could yield a false reading. The person goes through a new anonymous examination, and prophylactic treatment is also given on an anonymous basis. We, of course, are talking about people who have the latent form of the disease, i.e., carriers of the virus. They will always remain anonymous. Moreover, their friends also come in for anonymous examinations. I can say with utmost certainty that we must not adopt the procedure employed by venereal disease specialists who first of all demand the patient being tested must present his passport. This results in a long delay in the detection of the disease. And according to the information I have, this is being done at the AIDS testing centers in Leningrad. I also understand that this system of "passport control" has been adopted in other cities as well. But there is factor of fear, a certain syndrome that has been existed in our mentality since ancient times: Suppose the patient does not come to the center when he finds out he is infected, and then infects others. Such cases are not just exceptions. But you must understand that when a person makes up his mind to go for this test, he is primarily interested in getting medical help.

At times we hear that the simplest way to prevent immunodeficiency infections would be to isolate carriers of the virus and infected persons. It is because of such medieval views that castles have appeared in various countries, including ours, who are literally bounded by those around them. This indicates how poorly we have safeguarded medical confidentiality. Those who demand severe measures consider themselves to be persons of high morality. In fact, they are demanding safety so that they can continue to have a dissolute lifestyle on the sly. Those persons who truly adhere to standards of morality have nothing to fear.

I believe it is time to organize a kind of club for the social rehabilitation of AIDS patients. These people must communicate and meet with each other so that they do not become socially isolated.

**Soviet Long-Term Anti-AIDS Program**  
54001027 Moscow SOVETSKAYA ROSSIYA  
in Russian 20 Jul 88 p 4

[Interview with President of the USSR Academy of Medical Sciences Valentin Ivanovich Pokrovskiy by SOVETSKAYA ROSSIYA correspondents: "Can the Epidemic Be Halted?"]

[Text] SOVETSKAYA ROSSIYA: Valentin Ivanovich, as we know the government's program for controlling AIDS to the year 2005 has now been worked out.

**V.I. Pokrovskiy:** First of all, the program reflects the approach I have already mentioned, i.e., that AIDS is not merely a medical problem. The resolution of that problem requires the combined efforts of many ministries and public organizations and, I dare say, the efforts of the entire society. Currently participating in the implementation of that program are the USSR Academy of Medical Sciences, the ministries of health, medical and microbiology industry, internal affairs, and justice, the KGB, and other departments.

I would say that we have already resolved many legal aspects associated with this dangerous disease. The law specifies criminal penalties (with sentences up to eight years) for the premeditated dissemination of HIV. That is, those persons who know they are infected with the virus and who enter into intimate relations without warning their partner about such danger or who become blood donors, are subject to prosecution under the law.

Therefore, every person in whom the virus has been detected signs a pledge of responsibility.

The next important stipulation of the law deals with obligatory examination. Let us say that in the course of "tracking the epidemiological chain" we come across a person who might be infected. Let us suppose that he refuses to be tested for AIDS (this has happened). In such a case he would be compelled to undergo an examination.

This approach is fully supported by the World Health Organization. Scientists in several countries—in Australia for example—after studying our experience, believe that the same approach should be adopted in their countries.

The law has a special proviso regarding foreign citizens infected by the virus. Every visitor who resides in the USSR for more than three months is obligated to undergo an examination. As I have already mentioned, this has allowed us to detect approximately 300 foreigners infected by HIV. What is particularly sad is the fact

that many of these persons are students from the developing countries who came to our country to obtain an education. Once they were diagnosed as having the infection, they were sent out of the Soviet Union. This measure has compelled a number of countries to change their method of selecting applicants for study in the USSR. Now such applicants are first tested for AIDS in their own countries. Consequently, this year we have noted a marked decrease in the number of foreigners infected by HIV.

The legislative acts designed to reinforce the efforts of our society to combat AIDS do constitute an important lever, but its efficacy should not be overestimated. The principal barrier to the widespread dissemination of this disease, as I have mentioned earlier, is an active moral stance on the part of each person and a sober awareness about HIV, AIDS, the means of viral transmission, and prevention. Special pamphlets and brochures are being published, and films are being made. But so far that is only a drop in the ocean. Of great concern is the fact that special classes on the prevention of AIDS and venereal diseases have not yet been introduced in the senior grades of schools, vo-tech schools, *tekhnikums*, and VUZ's. Life demands that we immediately stop being sanctimonious about problems of sex education.

Medical research, of course, must play a significant role in the state program to combat AIDS. More than two billion rubles are being appropriated for that purpose.

That effort is being undertaken in three directions. The first entails the development of effective testing systems to detect virus carriers. A whole array of institutions are engaged in this effort, including the Institute of Virology, the Institute of Epidemiology and Virology, the USSR Academy of Medical Sciences VKNTs [not further identified], the USSR Ministry of Health Central Epidemiology Institute, and the USSR Academy of Sciences Institute of Bioorganic Chemistry.

An entire array of approaches is being used for diagnosis. A virus is cultivated on a cell culture or produced by genetic engineering, and its antigens are synthesized. Each of these approaches has its own advantages and disadvantages. But we believe that we should proceed along several paths. Several test systems have already been introduced. Facilities are being sought to produce several million doses of a new synthetic preparation. But at the present time, I consider this to be insufficient. We must accelerate the pace of producing diagnostic aids. By our estimates, we shall have to perform 18 to 20 million analyses per year.

The next direction of our effort is to work out a system of epidemiological surveillance which would entail a whole complex of essential measures aimed at preventing the spread of the disease. The few I have already mentioned include hygiene education, the implementation of legal

measures, etc. Our task is to identify and examine with maximum precision all of the risk groups—prostitutes, homosexuals, and drug addicts.

Epidemiologists are now equipped with the very latest technology. All of the statistical sampling is stored in a computer data bank.

We have all the information we need about known virus carriers. We know their contacts, and those persons are kept under medical observation. For example, one of the women who had contact with a virus carrier was tested one year ago. At that time, the test result was negative. Unfortunately, during the last 12 months she developed antibodies to the virus. This means that she was unable to avoid infection. But we have had other cases where a child, for example, was born to a woman who had contracted the virus. Although antibodies were discovered in the child's blood at four months of age, they disappeared one year later. We hope that the child will grow up to be a healthy individual.

Thus, the fate of people depends on the painstaking work being done on epidemiological surveillance at the laboratory of the Central Scientific-Research Institute of Epidemiology (V. V. Pokrovskiy is the laboratory chief).

We are actively engaged in the development of and search for drugs that can be used against HIV. We have now produced the drug azidothymidine. Thus far, it is the only preparation that has been effective in restraining the development of this disease in humans. For example, the condition of a patient with a conclusive AIDS diagnosis even stabilized somewhat after the patient took azidothymidine. We have also been using immunostimulants. The hopes we had placed on T-activin did not prove to be justified.

I must note that the search for anti-AIDS drugs is a rather difficult one. First the drug is tested on a cell culture inoculated with the virus. Let us assume that the new preparation does turn out to inhibit viral growth. This in itself does not mean anything as yet. The drug must then be passed on to a clinic where it can be tested on people. But here we run into a serious problem of ethics. There are no animals that can become infected with AIDS (even if chimpanzees are artificially infected they only become virus carriers). So the animals never reach the stage of AIDS. Therefore, the testing of new drugs has to be done on people in exactly the same way as are vaccines that are under development. You will have to agree that the selection of persons for these kinds of tests is no easy matter. That problem is now being actively discussed within the framework of the World Health Organization.

As I have said, the AIDS problem knows no boundaries. It is an international phenomenon. A consolidation of scientific efforts has been necessitated in the struggle against this disease, and at the governmental level.



We have established the closest possible ties in this regard with the CMEA member nations. A special coordinating program has been worked out. For example, in September of this year we shall undertake joint studies on diagnostic preparations and sera. The scientists of the socialist countries will present their best projects and the most effective ones will be selected. This will give us a push forward in the diagnosis of the disease.

The USSR is also an active participant in the WHO program for the control of AIDS. Our country was one of the first to contribute to its fund by giving 800,000 rubles in gold. The coordination of international research has already borne fruit. In fact, any scientist of any member-country of WHO has at his disposal exhaustive information about achievements in the manufacture of preparations, vaccines, diagnostic aids, and the overall picture of the disease's prevalence.

It is gratifying that our international contacts are continually expanding from one year to the next.

**Case of First Soviet Citizen With AIDS Reported**  
*54001003 Moscow TERAPEVTICHESKIY ARKHIV*  
Vol 60 No 7, Jul 88 (manuscript received 24 Feb 88) pp 10-11

[Article by V. I. Pokrovskiy, V. V. Pokrovskiy, N. S. Potekayev, Ye. Yu. Karetkina, N. V. Astafyeva, M. A. Burchuk, Ye. A. Fabrikova, M. Kh. Levitan, and Ye. V. Petrova, USSR Ministry of Health Central Scientific-Research Institute of Epidemiology, Department of Skin and Venereal Diseases, 1st Moscow Medical Institute imeni I. M. Sechenov, City Clinical Hospital No 24, Moscow]

[Text] At the present time the infection caused by the human immunodeficiency virus (HIV), whose final stage can be acquired immunodeficiency syndrome (AIDS), has been recorded in almost all countries of the world. The first cases of AIDS detected in the USSR among foreigners have been described earlier. The present study cites the first case of an HIV infection resulting in AIDS that has been diagnosed in a USSR citizen.

Patient K, 32 years, first entered the isolation ward of the Moscow Clinical Infectious Diseases Hospital No. 2 on August 14, 1982, complaining of having a fever for a long period of time and mucoid loose stools. On August 12, 1982 the patient arrived from Tanzania where he had been working since 1980. From July 13 to 21, 1982 the patient was worried about general lassitude and a subfebrile temperature for which he was given anti-malarial medication. Blood analysis of July 21, 1982: WBC  $7.8 \times 10^9/L$ , segmented neutrophils 48%, eosinophils 2%, lymphocytes 45%, and monocytes 5%; ESR 20 mm/h. In the next few days his temperature rose to  $39.8^\circ C$ . On August 7, 1982 loose stools appeared five to seven times a day. Blood analysis of August 7, 1982: WBC  $8.7 \times 10^9/L$ , segmented neutrophils 51%, eosinophils 3%, lymphocytes 39%, and monocytes 7%.

Body temperature decreased but steadily remained subfebrile, but on August 19, 1982 the temperature again increased to  $39.8^\circ C$ . The patient complained of insomnia, liquid stools in connection with which the patient was sent to the USSR.

Primary examination disclosed a furred tongue, liver extended 1 to 1.5 cm out from under the costal arch, spasm and tautness of a moderately painful sigmoid colon, pasty-like stools with mucus. Body temperature  $36.6^\circ C$ . Furazolidone (0.1 g four times a day) was administered upon the suspicion of bacterial dysentery, and the stools became normal in the next three days. On the 7th day of the patient's stay at the hospital nasal congestion was observed along with a spotted throat, and two days later the body temperature once again increased to  $38.4^\circ C$ . A profuse finely punctated rash was observed on the skin of the trunk and extremities. The spleen could be palpated and the inguinal lymph nodes were found to be enlarged and painful. Blood analysis showed a 47% lymphocytosis and an 18% stab neutrophil shift. Butadione and sulfadimethoxidine treatment resulted in the disappearance of the rash after two days and the normalization of body temperature, but general lassitude and tenderness of the enlarged inguinal lymph nodes remained. The stools became firmer with episodic appearances of blood drops. Digital examination of the rectum detected a thickening suggestive of a tumor. The appearance of blood was evaluated as a manifestation of hemorrhoids from which the patient had been suffering since 1972. No pathogenic microorganisms were detected in cultures of the blood, urine, or feces. A diagnosis of typhoid fever was made on the basis of the patient's prolonged wave-like fever, insomnia, lymphocytosis, diarrhea, enlarged spleen, what was considered to be most important—the detection of antibodies to group D *Salmonella* in a passive hemagglutination reaction at a 1:280 titer. In a background of levomycetin therapy (0.5 g four times a day) the appearance of small ulcerations was observed in the buccal mucosa, while subfebrile temperature and hepatosplenomegaly remained.

A rectoscopy was performed only on the 25th day of the patient's stay at the hospital because until that time the patient absolutely refused to have that done. A bleeding formation resembling a colored cabbage was observed 1 cm from the anus and protruding into the lumen of the colon. On the suspicion of having a rectal tumor the patient was transferred to Moscow's Hospital No. 29 on the 57th day of his illness and the 26th day of his stay at the hospital.

The case history at Hospital No. 29 was lost. On November 3, 1982, almost two months after his admission, the patient was transferred to the proctology ward of City Clinical Hospital No. 24 with complaints of loose stool with blood, mucus and pus up to 12 times a day, tenesmus, pains in the stomach and anal orifice, and elevated temperature to  $39^\circ C$ . Weight loss and pallor were observed upon examination. The liver, spleen, and





**FIGURE 1. Kaposi's Sarcoma Lesion of Right Shin and Foot in an AIDS Patient**  
a. Upon admission; b. Beginning of irradiation; c. One month after irradiation



**FIGURE 2. Kaposi's Sarcoma Lesion of the Face and Upper Palate in an AIDS Patient**

lymph nodes were not enlarged. Large lesions and fissures in the anal orifice were found to have spread to the perianal region and the skin around the anus was markedly edematous. A rectoscopy demonstrated hyperemic

mucosa which was distended with numerous bleeding erosions. A vascular pattern is lacking. Elongated ulcers with uneven edges are present. The fundus of the ulcerated sector is covered with a hemorrhagic necrotic patch. The thickened folds of mucous membrane with large tumor-like protrusions into the lumen form an uneven surface ("cobblestone road"). Blood analysis: WBC  $12.0 \times 10^9/l$ , polymorphs 20%, SEGS 45%; ESR 62 mm/h, blood  $\gamma$ -globulin 26.0 g/l. A histological examination of the rectal mucosa showed atrophy, necrotic areas, and lymphoid cellular response in the interglandular tissue. Examination of the polypoid adenoma-like section demonstrated the presence of a fibrous-suppurative exudate and lymphocytes infiltrates mixed with eosinophils primarily around the vessels in the submucosal layer. Condition was diagnosed as Crohn's disease in the form of ileocolitis with an infected perianal area.

Prolonged corticosteroid and sulfasalazine therapy was instituted. Patient was discharged in satisfactory condition on April 28, 1983.

Patient was readmitted to Moscow's Hospital No. 24 in January 1987 with complaints of stomach and rectal pains. In addition, patient K. reported that in December 1985 he noted dark red spots had appeared on his right foot, then on his shin, hip, trunk, and face. A rectoscopic examination of the rectal mucosa revealed analogous formations and an inflamed mucosa.

At the end of February the physician who had been treating the patient received information about AIDS for the first time and suspected that the patient had Kaposi's

sarcoma which had been clinically diagnosed on February 26, 1987. On that same day antibodies to HIV had been detected in an enzyme immunoassay and subsequently confirmed in the immune blotting test. The patient with suspected AIDS was again transferred to the isolation ward of the Clinical Infectious Diseases Hospital No. 2 in Moscow.

Upon admission to the ward the patient complained of elevated body temperature up to 38 °C, burning sensations, edema, and reddening of his shin, loose stools up to three times a day, and skin eruptions. The right foot and shin were significantly enlarged due to infiltration and edema. The skin there was acutely taut and saturated by a pink-red color. The hyperemia had sharp borders and in some places irregular tongue-like contours. On this background, there were isolated groups and conglomerates of numerous dark-red, dark-purple, and brown nodes and nodules whose surface was smooth or covered with scales and verrucose vegetations (Fig. 1a). The eruptions had a dough-like consistency. The toes were markedly thickened and deformed. Subjectively, tenderness increased when walking. Nodular eruptions which in places fused into plaques were observed on the skin of the face, trunk, hands and feet as well as on the buccal mucosa (hard and soft palate, and back of the throat; Fig. 2), in the perianal region, and on the glans penis (Fig. 3). The eruptions on the face, the buccal mucosa, the perianal region, and the glans penis were fleshy and dark-colored.

Depigmented scars were observed on the skin of the right side of the chest and back following two episodes of

shingles (Fig. 4 a, b). Multiple cervical (from 2—3 mm to 1 cm) and inguinal (up to 1 cm) lymph nodes were palpable. The liver protruded 1 cm from the edge of the costal arch and the spleen was clearly palpable. Blood analysis: WBC  $9.4 \times 10^9/l$ , lymphocytes 10%, OK-T4 8%, OK-T8 46%, OK-T4/OK-T8 ratio 0.18.

On the basis of detecting Kaposi's sarcoma, antibodies to HIV, and typical immunity suppression, on March 3, 1987 the patient was diagnosed as having an HIV infection in the advanced AIDS stage, Kaposi's sarcoma, and erysipelas inflammation of the right shin. The Kaposi's sarcoma diagnosis was subsequently confirmed histologically by I. S. Persina.

The epidemiological anamnesis remained unclear although certain characteristics of the patient's behavior suggested homosexual tendencies (bleached hair and excessive use of cosmetics). It was only after three weeks that additional data could be obtained.

During his student days patient K. found that he was attracted to persons of his own sex and engaged in several homosexual relationships. He had been working

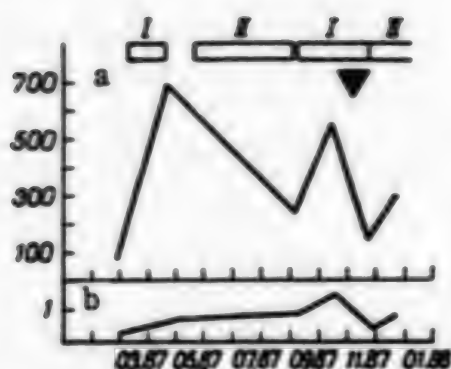


FIGURE 3. Kaposi's Sarcoma Lesion of the Penis in an AIDS Patient



FIGURE 4. Skin Scar Changes of an AIDS Patient Following Two Attacks of Shingles

a. on the chest; b. on the back



**FIGURE 5. Change in the Number of T-Lymphocyte-Helpers ( $1 \times 10^6/l$  in the Blood of Patient K and Their Correlation with T-suppressor Cells in AIDS Therapy**  
Horizontal rectangles—periods of therapy: I—reaferon, II—AZT; triangle—course of treatment of right shin. X-axis—data; Y-axis—a) number of T-helpers— $1 \times 10^6/l$ , b) T-helper/T-suppressor ratio

in Tanzania since 1980 where he engaged in a homosexual relationship with a local resident from the summer of 1981 to January 1982. Beginning in February 1982 he noticed frequent bleeding from the anal orifice. Sometime between the end of May and beginning of June he engaged in anal intercourse one time with a random African partner. The above-mentioned symptoms appeared in the patient approximately one to one and one-half months later. Warranting special attention among the data additionally provided by the patient is the appearance of a spotted eruption on July 19–20, 1982 which local physicians judged to be an allergic reaction to anti-malarial medication, as well as the appearance of severe headaches and acute insomnia.

Following his recovery from colitis in 1983 the patient again engaged in homosexual relations. He and his partners infected a total of 14 persons. A detailed epidemiological investigation has been published.

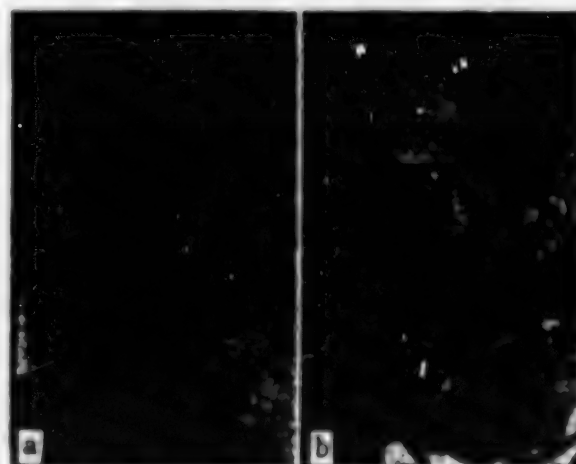
During the period 1983–1985 the patient underwent two episodes of shingles and one episode of mild pneumonia. He noticed the first signs of Kaposi's sarcoma at the end of 1985 for which he went to see physicians in 1986, but to no avail.

From the first day of the patient's stay at the hospital he was given penicillin in connection with erysipelas inflammation. The patient felt much better very quickly and the epidermal manifestations of the erysipelas almost completely disappeared in 10 days. Intramuscular administration of reaferon was started on March 14 and was subsequently administered intravenously at increased doses from 2,000,000 to 10,000,000 units daily for a period of 35 days. The reaferon therapy was accompanied by lassitude, anorexia, hyperthermia which grew with increased dosage of the preparation (up to  $41^\circ\text{C}$ ) as well as loose stools. The manifestations of

Kaposi's sarcoma noticeably became drier and darker in color from the initial days of treatment. All signs of Kaposi's sarcoma completely disappeared in the anal orifice upon completion of the course of treatment. Similar results from the use of reaferon had been observed previously. The OK-T4/OK-T8 ratio increased to 0.55 (Fig. 5). Following withdrawal of the medication the patient felt better and his appetite improved. On May 24, 1987 the patient started to receive oral doses of azidothymidine (AZT) (from the Biotechnologiya Scientific Production Organization) whose effectiveness has been proven by many investigators. On the second day of this medication (0.05 g/daily) the patient developed a fever, arthralgia, and a pruritic spotty-papular rash on his hands. Following a six-day pause in medication, AZT therapy was renewed in combination with prednisolone (30 mg/daily) in view of the grave prognosis. In the absence of side reactions the AZT dose was brought up to 0.2 g/daily. After the prednisolone was withdrawn the patient continued to receive AZT at the indicated dosage for another 80 days. During this period the number of T-helpers continued to increase (see Fig. 5).

Because of the pronounced effects of the patient's hospital stay, he was discharged to go home and continued to get AZT treatment. In spite of the fact that the Kaposi's sarcoma facial lesions completely disappeared during this period (Fig. 6 a, b), the edema on his foot and leg increased in area and wart-like colored cabbage type elements appeared there. By the middle of August an ulceration with a thin discharge also appeared on the shin (see Fig. 1, b). Upon his readmission on September 6, 1987: OK-T4 31%, OK-T8 33%, OK-T4/OK-T8 0.94

Reaferon therapy was reinstituted but a different dose schedule: a three-day course of treatment at 2,000,000–4,000,000 units intramuscularly with a three-day interval. The patient's tolerance of this dosage was satisfactory and body temperature was subfebrile. The OK-T4/OK-T8 ratio on October 14, 1987 was 1.6 (lower



**FIGURE 6. Kaposi's Sarcoma Facial Lesions in an AIDS Patient**  
a—upon admission; b—during AZT treatment



limit of the normal value). In view of the fact that warty growths on the patient's foot did not allow him to wear shoes, he was consequently confined to bed. In addition, because of his satisfactory immunity condition the patient underwent a course of electron irradiation of his right foot and shin at the RSFSR Ministry of Health Scientific-Research Institute of X-Ray Radiology as performed by G. A. Parshin. After the completion of the radiation treatment the patient's condition deteriorated. Pains appeared in his foot and shin and tissue rejection set in. The number of WBC decreased to  $3.5 \times 10^3/l$  and the OK-T4/OK-T8 ratio decreased to 0.26.

However, three weeks after the completion of the radiation therapy during which the patient was receiving AZT, the lesions epithelized, the pains disappeared, and the patient felt better. The OK-T4/OK-T8 (22%:29%) ratio increased to 0.76. There was marked local improvement (see Fig. 1, c). At the patient's insistence he was once again sent home on December 31, 1987 under the polyclinic's observation and given a constant daily AZT dosage of 0.2 g. According to the data of June 15, 1988 the patient's condition was satisfactory.

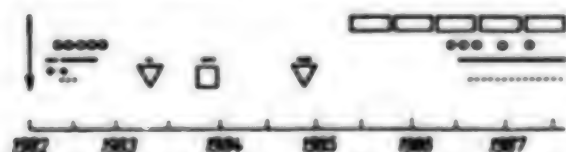


FIGURE 7. HIV Infection Clinical Symptom Dynamics in Patient K.

Arrow indicates presumed time of infection. Continuous line represents periods of elevated temperature. Circles indicate periods of diarrhea. Triangles indicate periods of herpes zoster. Rectangles indicate appearance of Kaposi's sarcoma. Crosses indicate appearance of rash. Square indicates pneumonia. Dotted lines indicate times at which enlarged lymph nodes were detected.

The case described apparently is a classical example of a HIV infection (Fig. 7) with advanced AIDS in the form of Kaposi's sarcoma. The early manifestations of the infection which appeared several months after sexual contact in a country with an HIV infection epidemic are similar to those described by R. Biggar et al., where the first manifestation was accompanied by skin rash, diarrhea, and pharyngitis. Many investigators consider the episodes of spotty eruptions during this period to be typical as are encephalic phenomena (headache and insomnia). The early symptomatic complex of our patient fully fits the picture of a "mononucleosis-like syndrome" and even "febrile pharyngitis".

The HIV infection in patient K. apparently developed on top of an inflammatory process in the rectum that began in 1982 and which is a typical consequence of homosexual relationships. This process probably explains the infection that occurred during the casual contact in May 1982.

Unfortunately, one of the patient's case histories was lost and his blood serum was not preserved so that we could not prove that serum conversion had already taken place during this period.

The subsequent course of the disease was accompanied by the typical manifestations of so-called AIDS-related complex, including secondary herpes zoster which is a reliable indicator of immunity disturbance during this period.

There is also doubtless interest in the results obtained by the combined administration of reaféron and AZT which yielded pronounced clinical (see Fig. 6) and laboratory (see Fig. 5) positive effects. This treatment can obviously be considered to be relatively successful in view of the fact that the patient was diagnosed to have Kaposi's sarcoma in a quite advanced stage. The attempts at electron beam local irradiation yielded a good local effect (see Fig. 1, b), although this did result in a sharp drop in the number of T-helpers (see Fig. 5). The favorable outcome of this procedure was probably due to the relatively good immune state that was achieved and which should be an absolute requirement before this method of therapy can be applied.

#### Conclusions

1. A HIV infection and AIDS case has been described and diagnosed in a Soviet citizen for the first time.
2. The combined administration of azidothymidine and reaféron to a patient with AIDS and Kaposi's sarcoma has yielded satisfactory results.

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**Possible Clinical-Laboratory Diagnosis of the Lymphadenopathic Stage of an HIV Infection Reported**

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[Article by T. I. Irova, Yu. P. Reznikov, V. V. Pokrovskiy, E. P. Vostrikova, Yu. P. Gribunov, and Z. K. Surovova (Moscow)]

[Text] The first reports about a disease which attacked the human immune system appeared in the USA in 1981. Within the course of a year the disease's epidemiology and etiology were established: A retrovirus was isolated from patients afflicted with acquired immunodeficiency syndrome (AIDS) which has in recent times come to be called a human immunodeficiency virus (HIV).

AIDS has now been recorded in all of the world's continents. The morbidity of AIDS has been growing by geometric progressions in many European countries and the USA. Whereas only a few cases of this disease were observed in 1980, by June 1987 there were 37,019 AIDS patients in the USA and 5,863 in Europe. According to WHO data as of January 1, 1987 there were 53,111 recorded cases of AIDS worldwide. Transmission of the virus through sexual contact has accounted for its rapid spread. Infection can also occur parenterally, particularly in blood transfusions, by drug addicts' use of non-sterile syringes, by the use of non-sterile needles in zone therapy as practiced by quack doctors, and by the use of non-sterile knives in the application of ritualistic skin incisions. The theoretical probability of a medical instrument causing a random mechanical infection does not exceed 1:600—1:700.

HIV primarily attacks the T-helpers as well as the neuroglial cells and macrophages which leaves the body defenseless against random infections and reduces its anti-tumor resistance. This leads to the outbreak of opportunistic diseases which precedes a latent period during which pronounced changes in the immune status already have taken place. This can be an extensive period during which the patient feels no ill effects. It is only in specific goal-directed examinations that one can detect an increase in the number of peripheral lymph nodes that is pronounced to one degree or another.

Generalized lymphadenopathy involving more than two groups of lymph nodes, with the exception of inguinal nodes, and more than two lymph nodes in a group is characteristic of AIDS. Lymphadenopathy is also frequently encountered in many other infectious diseases, including toxoplasmosis, infectious mononucleosis, and adenovirus infections.

The purpose of the present work is to identify the clinical-laboratory features in HIV-infected persons so that AIDS can be differentiated in its early stages from other pathological forms that are concomitant with lymphadenopathy.

We tested blood serum for the presence of antibodies to HIV by enzyme-linked immunoassay employing the Abbott HTLV-III and Abbott HTLV-III confirmatory EIA kits and by the immune blotting method. All of the patients in the hospital were given a thorough examination which included, in addition to routine procedures, tomography of thoracic organs to detect possible mediastinal lymph node enlargement, and ultrasonic testing of internal organs. Computerized tomography of thoracic and abdominal cavity organs was performed for some patients. We tested the immune status (T-lymphocyte subpopulations were counted with the aid of monoclonal antibodies to OKT-4 and OKT-8 furnished by the Ortho Company, USA). The content of A, M, and G blood serum immunoglobulin was assayed by gel immunodiffusion. Protein fractions of blood serum were assayed by electrophoresis, and total blood protein was computed. The Wasserman test was performed for the serum of all the patients.

Nineteen persons (all native Africans) were found to be seropositive to HIV. Antibodies to core and envelope viral antigens were detected in 17 of those persons. One person was found to have antibodies to core antigens only, and one person was found to have antibodies to envelope antigens only. The immune blotting method was used to test the blood serum of 16 out of the 19 antibody carriers. All 16 patients were found to have serum antibodies to a glycoprotein with a mass of 41 kD (p41). Antibodies to p55 and p10 were detected in 14 patients. Thirteen patients had antibodies to p24, 12 patients to p68, ten patients to p34, seven patients with antibodies to p160, and six patients with antibodies to p18.

The seropositive group of persons included 17 men and 2 women aged 25 to 52 years. Epidemiologically, all of them belonged to a risk group with respect to AIDS: Twelve persons were found to have engaged in many sexual relationships, including contacts with prostitutes. Two persons had engaged in homosexual relationships, and three were blood donors. Nineteen were found to have vaccinations, blood analyses, and injections, and two persons had submitted to needle therapy, ritual scarification, and quack doctor incisions.

HIV infections in four persons were detected at the hospital: One woman was being treated for repeated infertility, one man was examined in connection with suspected lymphogranuloma venereum, one was being treated for residual cerebral circulatory disturbances suffered several years ago, and one person was admitted to the hospital with a diagnosis of acute respiratory viral infection and suspected pneumonia. The remaining 15

persons considered themselves to be perfectly healthy, although antibodies to HIV were detected in the course of a general medical examination.

Generalized lymphadenopathy was observed in 18 of the 19 HIV-infected persons. The largest lymph nodes were in the occipital, postcervical, submaxillary as well as inguinal regions. The lymph nodes in eight persons were significantly enlarged (2.5–3.5 cm). In addition, several of the patients exhibited enlarged ulnar and subclavicular lymph nodes which are rather rarely encountered in other pathological conditions. All of the lymph nodes were painless upon palpation and were not fused to surrounding tissues, and had a compact elastic consistency. The generalized lymphadenopathy in five patients was of a persistent nature. Over a three-week stay in the hospital an enlargement of the peripheral lymph nodes was observed in four patients, and a decrease in lymph node size was noted in one patient. By the end of the hospital stay the right-hand Zorgius lymph node in one patient had enlarged to 2-cm and could be palpated.

An X-ray examination employing tomography of the thoracic cavity organs an enlargement of the intrathoracic lymph nodes was detected in only one patient with generalized Kaposi's sarcoma and in whom a gross pathology of the lungs and mediastinum was detected. Lymphadenopathy was established in one of the six patients by retr/eval computerized tomography of the abdominal cavity and thoracic organs.

The delayed tuberculin hypersensitivity skin test was negative in all 10 HIV-infected persons (not even a trace of the injection was left after 24 and 48 hours).

Positive serological syphilis reactions were elicited in two men. Moreover, one of them was diagnosed as having secondary recidivous syphilis. Four patients were found to have a folliculitis or mycosis type of skin lesion, and one patient was found to have generalized Kaposi's sarcoma with involvement of the lungs, G.I. tract, lymph nodes, buccal mucosa, and genitals. One woman was found to have an ovarian cystoma and a myoma of the uterus.

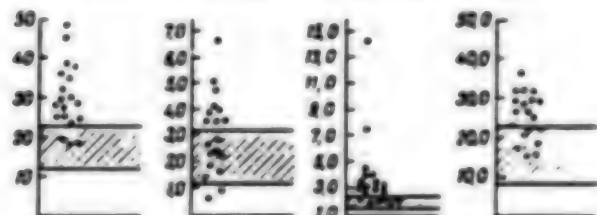


FIGURE 1. -Globulin Fraction of Blood Protein and Immunoglobulin Level

Left to right on X-axis— $\gamma$ -globulin (in percent of total protein); norm 12.7–22.0%; immunoglobulin A (norm 1.26–3.1 g/l), immunoglobulin M (norm 0.78–1.78 g/l), immunoglobulin G (norm 9.4–23.5 g/l); normal values region is cross-hatched.

Thirteen of the 19 examined persons exhibited leukocyte changes in the form of lymphocytosis up to a maximum of 57%, although the total number of leukocytes remained at the normal level. In five patients the ESR was increased to 19–64 mm/h. Hypergammaglobulinemia was observed in 17 out of the 19 HIV-infected persons in a background of normal total protein which reached a maximum of 47.9%. The A, M, and G immunoglobulin levels were within the normal range in only two patients whereas the remaining patients exhibited some degree of pronounced dysimmunoglobulinemia. The maximum levels of immunoglobulins A, M, and G were 4.84 g/l, 14.1 g/l, and 56.4 g/l respectively (Figure 1).

A profound cellular immunity defect was observed in 16 patients which was reflected in an acute drop in T-helper content and T-helper/T-suppressor ratio (OK-T4/OK-T8). T-helpers were absent in one patient with pronounced lymphadenopathy, and the OK-T4/OK-T8 ratio was 0.

In 15 of the 19 patients the blood serum  $\beta_2$ -microglobulin was assayed and turned out to be significantly elevated in 13 persons (maximum reached 6.3  $\mu$ g/ml; normal level is up to 2.4  $\mu$ g/ml).

We cite the following case study:

Patient G., 31 years, native of Africa. Considered himself to be perfectly healthy up to 1985. In May 1985 he noted an enlargement of right-hand cervical lymph nodes. One month later he noted an enlargement of other groups of lymph nodes, a loss of body weight, and pruritis. In September of that year he sought medical advice with regard to constant headaches. In that connection the physician called attention to changes in his blood analysis in the form of lymphocytosis up to 62%, eosinophilia up to 31%, and an accelerated ESR up to 27 mm/h. The presence of lymphogranuloma was suggested. The patient entered a clinic for verification of the diagnosis and treatment.

Upon admission to the clinic the patient's condition was satisfactory. He complained about headaches, primarily at night, as well as general weakness, and moderate pruritis. Pronounced lymphadenopathy warranted attention: occipital lymph node size reached 1.5 cm in diameter, postcervical nodes were 1 cm, submaxillary nodes were 2 cm in diameter, and inguinal nodes were 0.5 cm. Lymph nodes were of a rather dense consistency, painless to the touch, and not fused with surrounding tissues. The liver and spleen were not enlarged. On the patient's natural dark brown skin of his chest were confluent hypopigmented spots with scalloped edges which was a *Pityrosporum orbiculare* fungal infection. A rectoscopy revealed chronic proctitis, catarrhal inflammation, and erosive sphincteritis. A retrieval type computerized tomography of the thoracic organs (computer step 15 mm) detected multiple enlarged lymph nodes in the submaxillary regions. No significant enlargement of the

intrathoracic lymph nodes was demonstrated. No gross pathology of the abdominal cavity organs was demonstrated by an ultrasonic examination. General blood analysis: leukocytes 7/200, lymphocytosis 58%; ESR 4 mm/h. A biochemical examination of the blood demonstrated a small increase in transaminase content: aspartic was up to 2.35 mol/h/l, alanine transaminase was up to 2.79 mol/h/l. Total protein was 80.8 g/l, albumin count was down to 54.3%, and  $\gamma$ -globulins were elevated to 24.5%. Immunoglobulin A was 3.42 g/l, G—25.0 g/l, and M was within the normal range. Although the T- and B-lymphocyte count was within the normal range (2814 and 450 in 1  $\mu$ l respectively), the number of T-helpers (9%) and OK-T4/OK-T8 ratio (0.14) was radically reduced. A microscopic examination of the submaxillary lymph nodes demonstrated changes that are characteristic of lymphogranuloma of a lymphohistiocyte version: The diagram of lymph node structure was obliterated because of the proliferation of lymphocytes and histiocytes. Many mitoses were identified along with cells which resembled Hodgkins and Berezovskiy—Sternberg cells. Nevertheless the diagnosis of lymphogranuloma was subject to doubt. In view of the patient's residence in an AIDS-endemic country, his blood serum was tested for the presence of antibodies to HIV. The results were positive. Micro-preparations of the serum were reexamined: the lymph node exhibited a so-called follicular type reactive nodular hyperplasia, and there were many immunoblasts among lymphoid elements in various stages of maturation in the inter-follicular tissue. Conclusion: follicular type reactive hyperplasia (Fig. 2, a, b, see insert).

A detailed interrogation of the patient revealed that he had been infected with gonorrhea on several occasions and had sexual relations with many women. He denied homosexuality or drug addiction.

Thus the patient was diagnosed as having a HIV infection in the lymphadenopathic stage on the basis of his complaints about lassitude, headaches, reduced capacity for work over the course of the last six months, the presence of generalized lymphadenopathy, changes in his immune status that included a sharp drop in the OK-T4/OK-T8 ratio to 0.14 and dysimmunoglobulinemia, in addition to epidemiological anamnesis data as well as the detection of antibodies to HIV.

This case demonstrates the difficulties involved in diagnosing this disease. Even an exacting histological examination may lead the physician to false conclusions.

#### Conclusions

1. Generalized lymphadenopathy is the basic clinical syndrome in HIV infections. In the presence of a corresponding epidemiological anamnesis (numerous sexual relations and parenteral manipulations in an endemic region), the so-called complex of minor indications such

as general lassitude, reduced ability to work, headaches, and weight loss, is also of certain importance in the clinical diagnosis of this disease.

2. Laboratory indications of HIV infections include hypergammaglobulinemia, dysimmunoglobulinemia, reduction in T-helper count and OK-T4/OK-T8 ratio. Lymphocytosis and increased ESR also are of some importance in the diagnosis.

3. The diagnosis is confirmed by the detection of antibodies to HIV by the enzyme-linked immunoassay and immune blotting methods.

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Revision of AIDS Testing Law Suggested  
54001001 Moscow MEDITSINSKAYA GAZETA  
in Russian 9 Sep 88 p 3

[Article by Yu. Faybishenko: "AIDS: Breaches in the Barrier"]

[Text] At first this material was planned as a piece of newspaper reporting. The purpose of the report was to describe the work of personnel at the medical station at



the Universitetskaya hotel where foreign students from the developing and capitalist countries who have come to study in the Soviet Union are checked for AIDS.

We should recall that on August 25 of last year the Presidium of the USSR Supreme Soviet adopted the resolution: "On Measures for the Prevention of AIDS Virus Infection." On the basis of that resolution, several days later the USSR Ministry of Health approved "Regulations for Medical Examination for the Identification of AIDS Virus Infection," which specifically define the procedures for certifying foreigners "who have come to the USSR to study, to work, or for other purposes, for a period of three months or more, from a country where, according to information from the World Health Organization, AIDS is prevalent."

These documents served as "fodder" for several newspapers and radio stations hostile to our country. They screamed in harmony to the whole world about new violations of human rights in the Soviet Union. But gradually the tone of the publications started to change. And at the International Conference on the Control of AIDS which was held in Stockholm this summer there were many foreign specialists who said they were envious of their Soviet colleagues, who had managed to form a strict, clear cordon around the plague of the 20th century. Moreover, a number of other countries are already adopting, to some extent, the Soviet example of strict controls. For example, prostitutes are being examined, and in Bavaria (FRG) foreigners can obtain permanent residence permits only after having been checked for AIDS.

The Soviet Union has concluded an agreement with practically all of the socialist countries regarding the issuance of appropriate certificates. Each one of those countries, when sending their citizens to our country for a period of more than three months, checks them on their own for the presence of the immunodeficiency virus and issues such citizens appropriate documents which excuse them from being examined in our country. These same kinds of certificates are issued to Soviet citizens who travel to those countries. In this way, we eliminate the possibility of travel made to no avail, when persons who have barely just arrived are forced to leave our country. Negotiations are being completed to conclude similar agreements with a number of capitalist states. It goes without saying that such agreements will be concluded only with those whose public health sector is well organized.

And one more thing: As a result of this undertaking there has been a steady decrease in the number of viral carriers and infected persons who come to our country. Consequently, we are seeing fewer unpleasant situations associated with the deportation of such individuals.

But let us now return to the Universitetskaya Hotel. Arriving at its entrance hall are motley "Icaruses." Among them are likeable young people with their suitcases, bags,

and trunks that bear the labels and tags of many well-known airlines of the world. One can hear many languages in the hallway, and European attire alternates with the Indian sari and the national clothing of the African countries. This year, mainly during the August to October period, we are expecting to receive over 25,000 foreign students. They arrive via Moscow, Odessa, and Tashkent. So that now is the "peak" traffic period.

The elevator takes us up to the 13th floor, to the medical station. The medical workers there perform their duties quickly, efficiently, and without any fuss.

The medical station chief V. N. Muravyeva and the Chief Physician of Polyclinic No. 140 of the Gagarin District of Moscow N. K. Usachev, whose "zone of action" the hotel opens into, tell us that "immediately after the foreigners land at Sheremetevo, representatives of the USSR State Committee for People's Education meet the foreign students, organize them into groups and send them to us before they are assigned to their hotels. Otherwise it would be difficult to have them examined. After all, they are young people, highly mobile and cannot wait to see the sights of the capital. All the more so because many of them are only passing through Moscow, since they will be studying in other cities of the country. We not only take blood samples for AIDS testing (we use only disposable syringes for this purpose), but we also give them a general medical examination. If a foreigner presents with any medical problems or if we detect an illness, we direct the individual to a "specific" specialist at the medical-sanitation unit of the Moscow State University, which is located nearby.

The medical station has its own small isolation ward and is equipped to render first aid and assistance in the event that the plague, cholera, or any other particularly dangerous infectious disease is detected. The station even has plague-protective clothing, since some arriving students come from regions with poor epidemiological conditions.

The medical station operates 24 hours a day, and its personnel are especially trained and perform their work in a highly professional manner. Indeed, the arriving students are pleased to have a medical examination. Most of them come from countries where medical care is not free of charge and is rather expensive, unaffordable for many.

Blood samples taken for testing are sent on the same day to a special laboratory of the Central Scientific-Research Institute for Epidemiology of the USSR Ministry of Health.

In general, the planned report on this subject was turning out well. But everything was changed by one general notebook. Actually it wasn't the notebook itself, but the information recorded in it about the detection of persons infected with the AIDS virus. On Monday, at 1600 hours, that notebook contained the names of seven



persons from among the more than 3,000 persons examined at the medical station. We shall not mention the names of those persons or the countries of their origin. That's not the point. We shall refer to them by the numbers that were assigned in sequence to the blood samples taken for testing at the medical station.

No. 601—year of birth 1964, arrival in Moscow and date of blood testing, August 13. Three days later, on the 16th, the individual was sent to classes in Voronezh. On the 17th, an entry appeared in the notebook confirming an AIDS virus infection. The same was true in the case of No. 741. That person departed for the Kishinev Agricultural Institute. No. 1310, also born in 1964. Arrived in Moscow on August 20 and was given a medical examination on the same day. On the 21st, the individual departed for classes in Donetsk. Confirmation of the virus' presence was obtained several days later. It was a similar situation with No. 1316, who was sent to Rostov University, and No. 2326, who was sent to Baku, and No. 1082, who was the second person sent to Donetsk, and, finally, No. 2538, who was sent, as was one of the others, to Rostov.

All of these cases reflect an alarming pattern: The persons leave Moscow for different parts of the country, and several days later it is discovered that they are carriers of a most dangerous virus, and in accordance with Soviet law, they are subject to deportation.

As specialists have been confirming, the majority of foreigners in whom the virus has been detected in our country most likely contracted the disease through sexual contact. We are talking about young people, 23 to 25 years old. All of them have arrived from countries in Africa where heterosexual relationships are practiced very actively. There are no grounds for denying that some of the seven persons became infected through sexual contact. It would be naive to presume that, without knowing of their own infection, they immediately re-educate themselves and become "sanctimonious" as soon as they arrive in our country—we have our own risk group.

We already have one case which proves that point. In the middle of August the hotel's medical station received three young persons who had arrived the evening before from one of the countries bordering our own. On the evening of that day they invited some Moscow girls to their room and drank several bottles of dry wine with them. The boys don't remember when the guests left. At the medical station they were diagnosed as having been strongly intoxicated by tranquilizers. One can only guess as to what went on in that hotel room. That could be quite a suitable subject for a detective story. Perhaps the invited girls had heard about AIDS and understood how to prevent it in their own way. The victims had to be hospitalized at the Scientific-Research Institute for First Aid imeni N. V. Sklifosovskiy.

Of course, our health is in our own hands. One of the principal sources of infection is sexual promiscuity. But not all representatives of our "home-bred" risk group know about AIDS and the measures for its prevention. And if they do know about them, these measures are hardly being followed, since such persons act on the principle that "if the threat does exist somewhere, it doesn't have anything to do with me."

Z. K. Suvorova, Acting Director of the Special Scientific-Research Laboratory for the Epidemiology and Prevention of AIDS of the USSR Ministry of Health Central Scientific-Research Institute of Epidemiology says: "We understand the serious responsibility we undertake when we confirm an infection. Therefore, when we have doubts about a positive reaction, we do a triple enzyme immunoassay. If we get a second positive reaction, we do another, more specific and refined analysis, since we frequently get false positive readings in chronic diseases of the liver, malaria cases, and chronic alcoholism. All of these tests take two days."

And so, three days elapse from the time of a person's arrival in Moscow to the confirmation of an infection. But the arriving students, including those who are infected, are sent from Moscow to other cities without waiting for the results of their blood tests. We must frankly ask what the reason is for this dangerous situation?

"In the first place," explains Chief of the Department for the Acceptance of Foreign Students and Specialists of the USSR State Committee for National Education A. V. Makaryev, "at the times when large groups of individuals come to our country, there aren't enough hotel rooms for them. And in the second place, even if we could find rooms for all of them, regulations still don't allow us to detain for more than 24 hours foreigners who are merely passing through Moscow. In special cases—such as poor weather conditions or if train or airplane tickets are sold out—their departure may be postponed for another 24 hours."

But those regulations were approved more than three years before the resolution of the Presidium of the USSR Supreme Soviet and the Ministry of Health's medical examination regulations for the prevention of AIDS were adopted. The situation is considerably different today.

In our particular case, only seven of the more than three thousand persons examined at the Universitetskaya Hotel were found to be infected. Therefore, couldn't we possibly have made an exception for these seven persons and kept them in Moscow, after explaining in a tactful and gentle manner the reason for their delay?

"Impossible," A. V. Makaryev responded categorically. "The leadership of the USSR Ministry of Higher and Secondary Specialized Education (even before the creation of the State Committee) has submitted appropriate recommendations to higher levels. The problem has been resolved in principle, and these rules are supposed to be changed... in the beginning of 1989."

In the meantime, the present instructions and statutes and the lengthy processes of interdepartmental coordination are creating a quite dangerous situation, one in which we shall probably begin "to cross ourselves" only after the thunder has started to rumble.

## AUSTRIA

### Lower Incidence of New AIDS Cases Reported 54002443 Vienna NEUE AZ in German 30 Nov 88 p 4

[Article by "ff": "AIDS Information Campaign Brings Down Number of New Cases"]

[Text] From a worldwide point of view, Austria's AIDS figures look quite good. According to the World Health Organization, the number of reported AIDS cases currently stands at 125,000 with 77,000 of these registered in the United States alone. In Austria, however, the number of new cases is declining.

Just 1 year ago there was talk of as many as 10,000 AIDS cases in Austria. But according to [Franz] Loeschnek, the minister of health, Prof Moese, the chairman of the Supreme Public Health Council, and Judith Hutterer, the president of the AIDS society, that number is vastly exaggerated. At present, the number of reported cases of the disease stands at 2,634.

While the number of tests remained constant during the past year, the number of new infections stood at 368 as compared with 793 last year. The total number of AIDS patients is estimated to range between 5,000 and 6,000.

While the percentage of homosexuals among those newly stricken with the disease is declining, the number of infections among drug addicts has been climbing dramatically. Almost 45 percent of the new cases involve individuals dependent on drugs. "We are dealing most of all with women drug addicts," Moese says. "This raises the danger of a spread of the disease among heterosexuals." It also increases the danger of infection among newborn children.

But one of the first countermeasures is already making an impact. Throughout Austria, 576 individuals are taking part in the so-called methadone substitution program for drug addicts. By the 22 November target date this year, 232 AIDS cases were registered; 113 AIDS patients died. "In Austria," Hutterer says, "AIDS still is a disease one contracts by adopting a risky life style."

Loeschnek announced that a new poll will be conducted early next year on AIDS awareness and the sexual habits of the Austrian population. In 1989, the focus of the AIDS information program will be on women and young people.

The experts are worried about the negative attitude of the population toward AIDS patients and carriers of the disease. "People have not changed much since the days of the plague," Moese says.

## ITALY

### Record Number of Children With AIDS 54002440b Rome L'ESPRESSO in Italian 27 Nov 88 pp 6-11

[Article by Andrea Guermandi: "Baby AIDS."]

[Excerpt] Italy has the highest number of seropositive infants in the Western world. How can this be? What are the causes? And what is being done to combat the deadly disease? [passage omitted] (There are 740 sick persons in Lombardy, and for the early years of the 1990's it is forecast that 1 out of every 30 Milanese of reproductive age will test seropositive.) Although today Milan is the most advanced example, the cases are becoming ever more numerous throughout all of Italy of newborn babies like Alice, born with the infection, or of those hopelessly sick, like Moura, or of little ones testing seropositive, whose fear of becoming an outcast is greater than fear of the virus itself. Concealed behind official caution and a kind of collective repression which seems to prefer to confine these little ones in hospital wards, too little is said of these most defenseless AIDS victims. Provided, of course, that some unforeseen event does not catapult one of these children on to the front pages of the paper. That is what happened to Alessandro, 13 months old, from Rome, forced on Thursday 10 November to enter his nursery school at Torrevecchia, alone, escorted by the police. All the 60 other children had been kept at home by their parents. Alessandro's aunt had declared on his registration sheet that he was seropositive. "There are incidents of pure hysteria based on deep ignorance. There is not one case in the world of infection among children. But, unfortunately, if there continues to be no accurate information for families and teachers, these incidents are bound to recur," Giovanni Battista Rossi, director of the virology laboratory of the Higher Institute of Health, and in charge of the AIDS research project of the Ministry of Health, declared.

Aside from Africa, where the epidemic is assuming catastrophic proportions, Italy, of all western countries, has the greatest number of infected children. "We are two years ahead of the rest of the world in the field of children's AIDS," Rossi stressed. In 1984 he was the first in Italy to isolate the virus. The steps leading to this distinction are impressive. After a period of only six years, from 1982 when the first 4 cases of children infected with the virus were reported, to the end of October (1988), a total of 92 [children] were suffering from AIDS, according to official data.

### An Unequivocal Distinction

But, in actual fact, things are much worse. With the aim of better quantifying the number of infected persons, the Immunology Group of the Italian Pediatric Society has created an official "Register" of HIV-positive Italian children. The results, (to be published in the forthcoming

number of "Lancet", the most prestigious English medical review) obtained from reports of 56 pediatric centers, are dreadful. There are 651 infected children between the age of 0 and 13; another 35 have already died, and 155 present AIDS symptoms. That is not all. Disregarding statistical inconsistencies, Italy in any event has the highest percentage of children among those ill (with AIDS): 6 percent, according to the "Register;" and 3.45 percent according to the Ministry of Health. It is a very high percentage when compared with the European figure of 2.4 percent, and the United States figure, which is just short of 1.4 percent.

But why are so many children in Italy the victims of AIDS? The explanation is one of the few things in this puzzling illness that doctors and scientists for once agree on. While in the USA AIDS mainly attacks homosexuals, in Italy a real pool of seropositive cases has developed. [These are] men and women of reproductive age (the highest rate is between 20 and 29 years) infected by the virus because they are drug addicts, ex-drug addicts, or partners of even occasional drug users. "Of 651 cases only 78 children were infected by transfusions or by blood preparations for hemophiliacs," explained Pier Angelo Tovo, one of the coordinators of the "Register." He recalled that with the blood controls introduced in Italy in 1985, this source of infection is bound to disappear. In most of the other 573 cases, the child inherited the virus from addict or ex-addict mothers; or, from mothers infected by drug users or ex-drug users (the infection is more easily transmitted from the man to the woman). In addition to this pool, of increasingly vague characteristics and constantly reduced by the virus, (by now 85 percent of drug addicts are seropositive, according to experts) hospitals have reported the first cases of seropositive infants born to couples infected through heterosexual relations. That is the case of Antonio, 10 months old, placed in a Milan hospital with the first symptoms of the illness (constant fever, acute otitis, spasmodic cough) and who tested positive. Only then was it discovered that the parents, a young professional couple, were carriers without symptoms. For them the terrible chain of infection was started by the father's sexual adventure during a trip to the Caribbean islands.

#### Doctors Are Pessimistic

Does this misfortune threaten to inspire a new wave of sex hysteria over an illness already described as the plague of the 21st century? In reality the doctors called upon each day to combat on the pediatric AIDS front make no secret of their pessimism. "I do not believe any purpose is served by refusing to recognize the risks, and continuing with an overly reassuring information program. It is necessary to avoid in every possible way that other children should be exposed to terrible sufferings," asserted Marcello Giovannini, director of the pediatric clinic of the University of Milan at the San Paolo hospital.

With a high rate of mother-son transmission, according to Luc Montagnier, director of the Pasteur Institute of Paris, the chances are 50-50 that a seropositive mother will give

birth to a baby with AIDS. It is difficult to distinguish between the antibodies produced by mothers and by their fetus, as well as by their infants of up to 15-18 months. With no possibility of pre-natal diagnosis, the birth of these little ones is "at very high risk," as the virologist Giovanni Battista Rossi, emphasizes. "In substance, the sole possible prevention now is birth control." [That is] a Utopian dream, however, in a country where a real contraception policy has never gotten off the ground. Thus, after delays in social services, timid spot advertisements on the use of condoms, misinformation from doctors, and repeated condemnations by the Pope, [passage omitted] the hospitals were swamped by the first wave of pregnant seropositive women.

#### The Struggle for Existence

How many women become aware of being infected during the first months of pregnancy? How many abort? For what reasons do some women decide, despite everything, to continue their pregnancy? At present there are no answers to these questions. On the basis of data gathered from Turin and Milan hospitals it would appear that about half of those testing seropositive resort to an abortion. Many, however, become aware of it when it is too late. [That is] because not only are drug addicts sometimes unaware of being pregnant (drugs often block menstruation), but also because many gynecologists persist in not advising that the test be taken, not even to subjects at risk. At the Milan Mangiagalli hospital's "Center of Assistance to Drug Dependent Pregnant Women and Their Infants," they said, "A few days ago a woman came in six months pregnant, the wife of an African. Not even that information aroused any suspicion on the part of her doctor! Unfortunately, she tested positive." It is one of the few places in Italy where an interdisciplinary team (gynecologist, pediatrician, psychologist, and two social workers) treats drug-abuser mothers and the children until the seventh year of life. [passage omitted]

Tragic stories of little ones destroyed by infections have induced the Ministry of Health as of September to authorize an experimental program using the antiviral drug AZT on a few children. This is a recent positive development among so many unanswered questions. "For example, we have found that among the children suffering from AIDS, girls are the most fragile. Of 35 deaths, 25 were little girls, but we do not know why," stated Pier Angelo Tovo. For the others, for the dozens of seropositive infants, life is not such a fragile thread. Periodic examinations and tests, no vaccinations with live viruses. In a word, [they are] children who often should be protected from others, and not vice versa. But despite an avalanche of regional and ministerial circulars to principals and school doctors, they live like outcasts in our society. "They and their parents have a right to privacy. Until now it sufficed to inform the school authorities about our children to ensure their good adjustment," they say at the Mangiagalli Center. However, that right conflicts with the fears of teachers and parents, with the danger of creating an atmosphere of hysteria even before the wave of seropositive little ones arrives in school.



[passage omitted] In Milan during the first days of November all it took to sow terror and suspicion was a circular advising against the use of toothbrushes in nursery schools of the south-west suburbs. [passage omitted]

**Decrease in Homosexual AIDS Victims Reported**  
*54002440a Rome L'UNITA in Italian 27 Nov 88 p 9*

[Article by Andrea Guermandi]

[Excerpts] Condoms and multicolored gadgets for everyone; perhaps even play down the problem. Thus began the Bologna national meeting, held on the occasion of the World Health Organization's AIDS Day. Homosexuals, doctors, and politicians, coming from just about everywhere in Italy, talked for hours about what has been done and what still needs to be done in order to confront AIDS effectively. Although a dangerous, very dangerous disease, AIDS nevertheless should not bear moral or ethical connotations.

Franco Grillini, the national president of Arci Gay, [homosexuals' association] began by discussing the effects of the widespread information and prevention campaigns on homosexuals, one of the so-called at risk groups. From 1983 until now the number of homosexuals suffering from AIDS has declined. They constitute only 15 percent of the total, as compared with 100 percent in 1983-1984. Grillini said, "This sensational fact, this 85 percent, should not be interpreted as a victory, nor should it lead to a lowering of one's guard, nor, indeed, should it divert attention away from homosexuals to other subjects at risk. [passage omitted]

Homosexual groups have succeeded in showing that voluntary service pays, that prevention is successful, and that AIDS can be overcome. That 85 percent shows that that if the State had done its duty starting in 1983, when we reported the first death in Italy, we would not be in the tragic situation we are in today." (Editor's note: In Emilia Romagna alone 344 persons are suffering from AIDS.)

In recent years the Arci Gay association has sought to reach subjects at risk, and above all the unsheltered ones, those forsaken ones on the streets. Arci Gay, and volunteer services in general, have done what the State has not done.

Grillini stated, "There certainly is no need for punitive measures, even if a kind of new racism is emerging in connection with the spread of AIDS. Health and freedom are gained through solidarity, correct information, and preventive measures." The president of Arci Gay added, "A new cultural step forward is needed. A national network of self-governing homosexual counseling groups should be created. There should be collaboration with the public institutions."

For Renzo Imbeni, the mayor of Bologna, too, public and private action should be coordinated. "Delegating everything to public authorities means nothing will be solved."

"We knew we were being used as guinea pigs," said Vanni Piccolo, president of the Mieli Club in Rome. "Now we want to give a name to this disease, and not make a moral issue of it."

For the Roman epidemiologist, Carlo Perucci, the epidemiologists' principal mistake is to classify by risk category. "How does one define the category of homosexuals? There is no common denominator. And even that 85 percent decline is too optimistic, because the disease spreads in 7 to 10 years. However, one might say the statistics are more encouraging than in the past. We are now obtaining more reliable statistics on seropositive readings. In Rome the number of homosexual cases has declined to about 10 new cases per trimester, and is now exceeded by heterosexuals (14 new cases) per trimester, and by drug addicts (100 new cases) per trimester. But the problem remains wide open. The prevention campaign carried out personally by homosexuals has certainly brought results. However, more funds are needed, more space, and more prevention. Above all, one must not forget the weakest ones."

Franco Corleone, of the Senate's health committee, who participated in a meeting organized by the Arci Gay on AIDS prevention, declared "The failure of the Ministry of Health and many of the regions in dealing with AIDS is noted, but interest groups have played a propelling role." Because it had no policy regarding blood transfusions, the Ministry of Health must bear responsibility for the fate of those who received multiple transfusions. Furthermore, advantage has been taken of the AIDS emergency once again to pit old values against freedom and sexual liberation. For five years the AIDS problem has been concealed or minimized."

**AIDS Deaths on Rise in Sicily**  
*54002440c Rome LA REPUBBLICA in Italian 3 Dec 88 p 18*

[Article by Umberto Rosso: "AIDS Wreaks Havoc in Palermo."]

[Excerpts] AIDS killed five persons in a period of twenty days. That tragic record has plunged Palermo into a state of emergency.

According to official figures Sicily does not appear to be a very high risk region, and it actually ranks eighth on the list reporting deaths from acquired immune deficiency syndrome throughout the whole country.

But data and statistics probably no longer reflect the true extent of the tragedy. Lists no longer keep up with the spread of the disease, which perhaps only now is exploding on the island.

In the "Guadagna" hospital for contagious diseases, four deaths came, one after the other, separated by only a few days. Doctors are unwilling to divulge the names of the victims, but it is known that three were young drug



addicts: including a boy from Palermo and another foreigner who had lived in the Sicilian capital for many years and who no doubt caught the virus here.

The fourth person who died at the Guadagna [hospital] was a 50 year old man, a very well-known personality who had concealed his homosexuality almost up to the end.

The "bulletin" on AIDS deaths was rendered all the more tragic a few days ago by the report of the death of a fifth victim from Palermo: Another drug addict just discharged from the isolation ward of the Caltanissetta hospital.... [passage omitted]

Until three years ago AIDS was almost unknown in Palermo. There were only two cases. But twelve months later the number of cases had already increased to nine. Now, within the period of one year, 54 persons out of a population of 1 million inhabitants are sick with the disease. It is the most heavily affected city in Sicily. Figures for the rest of the island furnished the Ministry of Health by the Council's "Disease Control Center," include 41 patients (in about 4 million inhabitants).

Thus, more than 50 percent of the persons afflicted with the virus are concentrated in Sicily's capital. Forecasts are frightening. Experts say the number of cases will double within one year. Until now there have been approximately 30 victims.

In general, all are no more than 30 years old, and almost always are drug addicts or became infected after numerous blood transfusions. In the contagious wards of Sicilian hospitals there are also ten children, children of seropositive parents, and six young persons who apparently contracted AIDS through heterosexual relations. They are therefore not classified as "at risk" subjects. [passage omitted]

However, Sicilian health facilities, faced with this emergency, are ill-equipped, powerless, and almost paralyzed. Lack of personnel forced the Guadagna [hospital] to stop admitting patients: Only 3 doctors for 12 patients. Each AIDS patient ought to have a doctor at his side always.

It is sought to take measures by checking places where the risk is highest. Thus, it is no coincidence that [one such place], Local Health Unit 60 of Palermo, has a health maintenance contract with the Ucciardone prison.

## SWEDEN

**First Outbreak of Distemper in Ten Years Reported**  
54002443c Stockholm DAGENS NYHETER in Swedish  
12 Dec 88 p 8

[Article by Kerstin Hellblom: "New Outbreak of Distemper"]

[Text] For the first time in approximately 10 years, dogs in Sweden have been hit with distemper.

The source of the infection is the dog school outside Solleftea where two puppies have died. There is also a dog from the same litter which died in Uppsala on Friday, and a very sick dog in Karlstad.

The litter was vaccinated at the dog school several weeks ago. A few days later, one puppy became so sick that it had to be killed. Specimens that are now being analyzed at the National Veterinary Institute (SVA) show that the dog suffered from distemper.

### Quarantine

The litter that was afflicted was immediately put under quarantine and 10 dogs were found to be in various so-called feeding facilities around the country.

"We have checked all 10 dogs and found out that eight of them are healthy but even those are kept in isolation. Whether the two dogs that died in Uppsala and the sick dog in Karlstad do in fact suffer from distemper, we will only know when the tests from SVA have been analyzed," says Dan Borjesson, chief of the dog school in Solleftea where police dogs and seeing-eye dogs are bred and trained. Approximately 500 Schafer and Labrador dogs are placed in the feeding shelters at the age of 8 weeks to be returned to the school when they are 16-months-old for tests. About 170 then prove to be suited for training.

"None of the fully grown dogs have been afflicted. We have now hired extra personnel who are not allowed to work anywhere but in the infected quarters," says Dan Borjesson.

Many infected dogs do in fact come from the dog school in Solleftea. No other reports have been submitted to SVA which nonetheless urges the country's dog owners to make sure that their dogs receive proper vaccination. A dog should be vaccinated at 12 weeks of age, at 12-months and every 4th year thereafter.

### Older Dogs

Despite the name [puppy disease], the disease can afflict older dogs so they must also be vaccinated.

"Denmark had an outbreak of distemper several years ago and many dogs died. There is nothing that says that Sweden may be hit with that; nonetheless, we feel justified in urging a checkup of the dogs' vaccinations," says Prof Martin Wierup of SVA.

### Virus Disease

Distemper is a virus disease that has been known for hundreds of years. It can afflict various animals, for example, mink, fox and even seals. The animal suffers from fever, respiratory infections, balance disorder and diarrhea. Approximately 50 percent of the infected animals die.

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